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ABSTRACT

Using the National Longitudinal Surveys of Work Experience for Mature Men and Young Men, the paper compares the occupational structure of nonmetro and metro areas in 1971 and 1976, analyzes occupational mobility patterns of both groups in each area, and examines the relationship between occupational mobility and earnings. Transition matrices and regression analysis show nonmetro residents changed occupations more often than metro residents; that changers generally had lower earnings; and that race, age, education, and occupation impacted on wage determination. No significant changes in occupational distribution of mature men are shown in either metro or nonmetro areas. Significant increases are reflected in the proportion of young nonmetro men employed as craftsmen, foremen, kindred workers and managerial occupations, while a decline is shown in the proportion employed in clerical, operatives, and nonfarm laborer occupations. Additionally, the report reveals young men in occupations requiring low skills and low education, specifically laborers (except farm and mine, and service workers), frequently changed occupations; however occupations requiring higher education and skills or capital investments were highly immobile. (Author/AH)

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OCCUPATIONAL MOBILITY AND EARNINGS OF MALE WORKERS: METRO AND NONMETRO COMPARISONS

by Jacqueline Taylor Bhola, Economic Development Division, Economic Research Service, U.S. Department of Agriculture [1].

ABSTRACT

During the seventies, the rate of employment growth in nonmetro areas was higher than metro areas. Employment growth usually provides opportunities for occupational changing which can lead to higher earnings. Using the National Longitudinal Surveys of Work Experience for Mature Men and Young Men, this paper compares the occupational structure of nonmetro and metro areas in 1971 and 1976, analyzes occupational mobility patterns of mature men and young men of both areas and examines the relationship between occupational mobility and earnings.

Transition matrices and regression analysis were used to show that nonmetro residents changed occupations more often than metro residents. While occupational changers generally have lower earnings than nonchangers, several other factors are important in the determination of earnings. These other factors, (race, age, education, and occupation) may alter general conclusions about the impact of occupational mobility on wage determination.

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OCCUPATIONAL MOBILITY AND EARNINGS OF MALE WORKERS: METRO AND NONMETRO COMPARISONS

INTRODUCTION

Workers change occupations for many reasons. One in particular is that employment growth in an area may have opened up opportunities in higher paying fields. Historically employment rates in nonmetro areas have lagged behind metro areas. However during the seventies the rate of nonmetro employment growth surpassed metro areas. Information is needed on employment by occupation and earnings on a recurring basis to assess the relationship between occupational mobility and earnings in nonmetro areas.

Differences in the occupational structure of nonmetro and metro areas are documented in the literature (Brown and O'Leary, 1979; Nilsen, 1980; Nilsen, 1978; Schaub, 1981). Nonmetro areas have a higher proportion of low earning occupations compared to metro areas. Despite the differences in structure between the two areas there is a lack of research on the relationship between nonmetro earnings and occupational mobility patterns. This research void stems from data deficiencies on occupational changes.

Measuring changes in occupations requires a longitudinal data base identifying labor force status and occupations at two points in time. The 5-percent sample of the 1970 Census of Population is the most comprehensive data on occupational mobility. The 1970 Census included retrospective questions on occupations held by workers in 1965, as well as occupations in 1970. However, because of its age, this data would not accurately portray more recent occupational mobility patterns. The 1980 Census did not include retrospective questions on occupations. However, information on mobility patterns is available from the National Longitudinal Surveys by age and sex cohorts. These data are used in this paper.

This paper compares the occupational structure of nonmetro and metro areas in 1971 and 1976, analyzes occupational mobility patterns of mature men and young men of both areas, and examines the relationship between occupational mobility and earnings. The analysis provides insight into the role that occupational mobility, or change, plays in earnings determination.

Occupational Structure in the Seventies

During the seventies, metro and nonmetro areas continued the trend established earlier of shifting from manufacturing to service occupations. Between 1970 and 1977 significant employment increases occurred in the proportion of total employment in nonfarm managers and administrators, and service occupations (see table 1).[2] Operatives, except transport occupations, experienced a significant decline in the proportion of employment in both metro and nonmetro areas.

The occupational composition within nonmetro areas differs from that of metro areas. In 1977, more nonmetro workers were employed as operatives, except transport occupations, than any other occupation, while more metro workers were employed in clerical and kindred occupations. The proportion of metro workers employed in professional, technical and related occupations was larger than the proportion of nonmetro workers.

The net employment changes by occupations between 1970 and 1977 conceals gross occupational changes. Analyses of these gross occupational changes are required to fully understand occupational mobility and its effects on employment and wage changes.

Table 1--Occupation of Employed Persons 16 Years Old and Over, by Type of Residence, 1970 and 1977

Occupation Group	1970			1977		
	United States	Metro	Nonmetro	United States	Metro	Nonmetro
	Thousands					
Total employment	75,260	53,119	22,140	88,221	60,681	27,539
White Collar	Percent					
Professional, technical and kindred workers	15.0	16.2	12.0	15.5	16.8	12.5
Managers and administrators, except farm	8.4	8.7	7.9	10.8	1/11.3	2/9.9
Sales workers	7.2	7.8	5.8	6.3	6.9	4.9
Clerical and kindred workers	18.1	20.2	13.1	17.9	19.8	13.8
Blue Collar						
Craft and kindred workers	13.9	13.7	14.5	12.8	12.3	13.7
Operatives, except transport	13.9	12.7	16.7	11.5	1/10.1	2/14.6
Transport equipment operatives	3.9	3.7	4.3	3.9	3.6	4.4
Laborers, except farm	4.5	4.2	5.3	4.5	4.2	5.1
Other						
Farmworkers						
Farmers and farm managers	1.9	.48	5.2	1.6	.41	4.1
Farm laborers and supervisors	1.2	.56	2.9	1.2	.47	2.8
Service workers						
Service workers, except private household	10.4	10.4	10.5	12.8	1/12.9	2/12.7
Private household	1.5	1.3	1.9	1.3	1.2	1.4

1/ Significantly different from the 1970 percentage for the metro residence group at the 95-percent confidence level.

2/ Significantly different from the 1970 percentage for the nonmetro residence group at the 95-percent confidence level.

Source: [26]

Related Studies

Most occupational mobility studies are either limited to small geographic areas, include only a few occupations, or are restricted to large occupational groups. National level studies descrive the volume and direction of occupational shifting (Aronson, 1969; Byrne, 1975; Jaffee and Carlton, 1954; Kohen, 1977; Kohen, 1975; Rosenfield, 1979; Saben, 1976). The studies used transitional matrices to examine interoccupational movements, i.e., comparisons of occupations in one year with occupations in a subsequent year. When data permitted, the matrices were done by race, sex, age and other characteristics of the population.

Two studies examined the relationship between occupational mobility and earnings. Saben (1967) found no significant relationship between occupational mobility rates and earnings, while Aronson (1969) found a statistically significant positive association between earnings differences and interoccupational transfers at the national level. No studies have been done at the national level that determine the effect of occupational mobility on earnings of metro and nonmetro workers.

Samples

The National Longitudinal Surveys (NLS) of Work Experience for Mature Men and Young Men, conducted by the Center for Human Resources Research of The Ohio State University, provided the data for this study. The NLS is a national probability sample of approximately 5,000 individuals for each cohort. The mature men were age 50 to 64 years in 1971 and age 55 to 69 years in 1976. The young men were age 19 to 29 years in 1971 and age 24 to 34 years in 1976. The samples were designed to be representative of the U.S. population in the initial year (1966) of the survey. Parnes et al. (1977) and Parnes et al.(1975) provide a more detailed description of the data.

This analysis used only those persons in the NLS sample cohorts with a strong attachment to the labor force, and those who lived in the same type

of area, metro or nonmetro, in 1971 and 1976.[3] Thus, the mature male cohort was restricted to those men who were employed in both years, and were not retired from either their 1971 and 1976 jobs. The young male cohort was restricted to those employed in both years, and not enrolled in school in either year. The residentially stable requirement was imposed on both cohorts to exclude migrants. Migration is another type of mobility whose analysis is beyond the scope of this paper. Finally, only persons who earned at least $1.00 an hour in 1976, and whose ratio of 1976 to 1971 earnings did not exceed three, was included. This was done to avoid spurious results from coding and reporting errors. After all adjustments were made, there were 1,869 mature men and 1,865 young men in the samples.

OCCUPATIONAL MOBILITY DURING THE SEVENTIES

Occupational mobility based on movements between one-digit categories is first shown as net employment changes between 1971 and 1976. Then the occupational flows (i.e. gross mobility) are examined.[4] The small sample size precluded comparing most occupational changes between 1971 and 1976 for the mature cohort.

Net Mobility

According to the survey data, there were no significant changes from 1971 to 1976 in the proportion of mature men workers employed by occupation in either metro or nonmetro areas (table 2). However, for young men there was a significant increase in the proportions of nonmetro workers employed as craftsmen, foremen, and kindred workers between 1971 and 1976 (table 3). In addition, the proportion of young metro workers employed in the managerial occupations increased significantly, while the proportions employed in clerical, operatives, and laborers, except farm and mining occupations, declined.

Table 2--Major occupation group, 1971 and 1976, by residence, mature men

Occupation group	Nonmetro		Metro	
	Age 50-64 years	Age 55-69 years	Age 50-64 years	Age 55-69 years
	1971	1976	1971	1976
	Number			
Total respondents	619	619	1250	1250
	Percent			
Total	100	100	100	100
White Collar				
Professional, technical and kindred workers	1/7	1/6	12	12
Managers, officials and proprietors	14	12	17	15
Clerical and kindred workers	2/	4	6	7
Sales workers	2/	4	5	6
Blue Collar				
Craftsmen, foremen and kindred workers	19	18	23	24
Operatives and kindred workers	17	17	18	16
Laborers, except farm and mine	1/7	9	6	6
Other				
Farmers and farm managers	19	17	1/3	1/3
Farm laborers	1/6	1/7	2/	2/
Service workers	1/6	1/6	8	9

1/ Percentages based on less than 50 observations.
2/ Percentages not shown for 25 observations or less.

Source: National Longitudinal Surveys.

Table 3--Major occupation group, 1971 and 1976, by residence, young men

Occupation group	Nonmetro		Metro	
	Age 19-29 years	Age 24-34 years	Age 19-29 years	Age 24-34 years
	1971	1976	1971	1976
	Number			
Total respondents	626	626	1239	1239
	Percent			
Total	100	100	100	100
White Collar				
Professional, technical, and kindred workers	8	1/8	15	15
Managers, officials, and proprietors	1/6	11	10	3/16
Clerical and kindred workers	1/5	2/	9	3/6
Sales workers	1	2/	6	6
Blue Collar				
Craftsmen, foremen and kindred workers	21	3/25	22	23
Operatives and kindred workers	30	27	24	3/21
Laborers, except farm and mine	10	10	8	3/6
Other				
Farmers and farm managers	1/5	1/7	2/	2/
Farm laborers	1/7	1/4	2/	2/
Service workers	1/4	2/	6	6

1/ Percentages based on less than 50 observations.
2/ Percentages not shown for 25 observations or less.
3/ Significantly different from the 1971 percentage for this residence group at the 95-percent confidence level.

Source: National Longitudinal Surveys.

Gross Mobility

The net employment changes in Tables 2 and 3 may conceal significant movements of workers between occupational groups. The groups could maintain their proportions of total employment over time although large movements of workers occurred between occupations. In fact, the transition matrices of workers in Tables 4 and 5 show that workers in occupations with low skill and education requirements, for example, laborers, except farm and mine, and service workers, were highly mobile, while workers in occupations requiring higher skills and higher education levels or capital investments (professional, technical and farmers) were relatively immobile. Thirty percent of the mature males, and 46 percent of the young men changed occupations between 1971 and 1976. In addition, nonmetro residents were more likely to change occupations than metro residents. Thirty-three percent of the mature males in nonmetro areas changed occupations, compared to 28 percent in metro areas; while 49 percent of the nonmetro young men changed occupation, compared to 45 percent in metro areas.

Generally, in both nonmetro and metro areas, occupational shifts were within either blue collar or white collar categories, that is, when a blue collar worker changed occupation, it was usually to another blue collar occupation.[5] About half of the craftsmen occupational changers of the nonmetro mature cohort went into other blue collar occupations by 1976, which was not significantly different from the metro craftsmen occupational changers. Among the nonmetro and metro young men cohort, over 70 and 73 percent, respectively, of the occupational changers employed as professional, technical workers, and kindred workers in 1971 went into another white collar occupation. These differences were not significant between metro and nonmetro workers.

Table 4--Occupation in 1976 by occupation in 1971, by residence, mature men 1/

Residence and 1971 Occupation	Total		1976 Occupation									
	Number	Percent	Prof. tech.	Mana-gerial	Cleri-cal	Sales	Crafts-men	Opera-tives	Laborers ex. farm	Service workers	Farmers & farm man.	Farm laborers
			Percent									
Nonmetro												
Professional technical and kindred workers	1/40	100	80	13	5	0	3	0	0	0	0	0
Managers, officials and proprietors	85	100	0	62	5	8	12	5	4	4	1	0
Clerical and kindred workers	15	3/	—	—	—	—	—	—	—	—	—	—
Sales workers	21	3/	—	—	—	—	—	—	—	—	—	—
Craftsmen, foremen and kindred workers	117	100	1	7	3	0	68	11	5	3	2	1
Operatives and kindred workers	106	100	2	3	3	1	9	60	12	3	2	5
Laborers, except farm and mine	2/43	100	0	0	0	0	16	26	47	5	0	7
Service workers	2/39	100	0	3	8	0	3	10	15	56	3	3
Farmers and farm managers	118	100	0	3	1	0	3	3	2	2	81	6
Farm laborers	2/35	100	0	0	0	0	3	11	11	0	3	71
Metro												
Professional technical and kindred workers	152	100	80	11	3	0	1	4	0	0	1	0
Managers, officials and proprietors	218	100	7	61	6	12	10	2	4	1	0	0
Clerical and kindred workers	79	100	4	9	63	1	5	6	6	5	0	0
Sales workers	63	100	2	16	2	76	0	0	0	3	2	0
Craftsmen, foremen and kindred workers	293	100	1	4	2	4	78	5	5	3	4	4
Operatives and kindred workers	221	100	1	2	2	4	14	71	4	6	0	0
Laborers, except farm and mine	77	100	0	0	3	1	6	14	61	14	0	0
Service workers	99	100	4	3	4	0	6	4	3	76	0	0
Farmers and farm managers	2/32	100	0	0	0	3	6	0	0	0	91	0
Farm laborers	16	3/	—	—	—	—	—	—	—	—	—	—

1/ Underlined numbers represent employment in same occupational group in both years.
2/ Percentages based on less than 50 observations.
3/ Percentages not shown; based on less than 25 observations.

Source: National Longitudinal Surveys.

Table 5--Occupation in 1976 by occupation in 1971, by residence, young men 1/

Residence and 1971 Occupation	Total		1976 Occupation									
	Number	Percent	Prof. tech.	Mana-gerial	Cleri-cal	Sales	Crafts-men	Opera-tives	Laborers ex-farm and mine	Service workers	Farmers & farm man.	Farm laborers
			Percent									
Nonmetro												
Professional technical and kindred workers	51	100	69	10	6	8	2	0	4	0	2	0
Managers, officials and proprietors	2/40	100	5	45	3	10	2	12	5	3	3	3
Clerical and kindred workers	2/31	100	10	13	26	3	10	32	3	0	0	3
Sales workers	22	3/	--	--	--	--	--	--	--	--	--	--
Craftsmen, foremen and kindred workers	132	100	3	10	2	2	58	17	5	2	1	1
Operatives and kindred workers	165	100	1	5	2	2	25	51	9	2	3	1
Laborers, except farm and mine	65	100	3	5	0	2	15	31	38	0	2	5
Service workers	2/27	100	4	11	0	0	19	15	11	37	4	0
Farmers and farm managers	2/29	100	0	3	0	0	7	3	0	0	83	3
Farm laborers	2/44	100	0	2	0	0	7	18	16	0	16	41
Metro												
Professional technical and kindred workers	186	100	74	13	3	3	3	2	1	0	0	0
Managers, officials and proprietors	129	100	7	65	2	12	6	4	2	2	0	0
Clerical and kindred workers	105	100	12	14	33	3	10	14	7	6	0	0
Sales workers	68	100	6	25	7	47	7	3	3	1	0	0
Craftsmen, foremen and kindred workers	269	100	3	11	3	4	62	11	4	2	0	0
Operatives and kindred workers	292	100	1	6	4	2	22	54	6	3	4/	4/
Laborers, except farm and mine	97	100	4	4	6	2	16	39	22	6	0	0
Service workers	78	100	6	6	5	3	5	15	8	50	1	0
Farmers and managers	5	3/	--	--	--	--	--	--	--	--	--	--
Farm laborers	10	3/	--	--	--	--	--	--	--	--	--	--

1/ Underlined numbers represent employment in the same occupational group in both years.
2/ Percentages based on less than 50 observations.
3/ Percentages not shown; based on less than 25 observations.
4/ Less than .5 percent.

Source: National Longitudinal Surveys.

The data show significant differences in the magnitude of occupational upshifting between the two cohorts. Of the young men blue collar workers in 1971 in the full sample, 15.2 percent shifted into white collar occupations by 1976, compared to 7.1 percent for the mature cohort. Furthermore, metro blue collar workers of both cohorts exhibited significantly more occupational upshifting than nonmetro blue collar workers.

OCCUPATIONAL STATUS AND EARNINGS

Workers are purported to voluntarily change occupations to improve their earnings. The extent to which the earnings of occupational changers were improved from 1971 to 1976 was measured and compared to changes in earnings of workers who did not change occupations.

Earnings of Changers and Nonchangers

Generally, occupational changers of both age groups earned less before and after changing occupations than nonchangers earned (table 6 and 7). Among the young men, nonmetro changers earned 14 percent less than nonchangers in 1971; for metro areas the differential was 15 percent (table 7). In 1976, after changing occupations, the nonmetro and metro changers earned 13 percent and 10 percent, respectively, less than nonchangers. In 1971, the mature cohort exhibited no significant difference for all occupations combined in average hourly earnings by changers-nonchanger status in either metro or nonmetro areas; however, blue collar changers in both residence groups hads lower earnings than nonchangers. In the same cohort in 1976, nonmetro occupational changers earned 19 percent less than nonchangers, and metro changers earned 11 percent less than nonchangers (table 6).

Although occupation changers generally earned less than nonchangers, most young men who changed occupations had a relatively greater wage increase from 1971 to 1976 than nonchangers (table 7). This indicates that changing

Table 6--Average hourly earnings, by occupational status and residence, 1971 and 1976, mature men

Occupational Group 1976	Average hourly earnings											
	Nonmetro						Metro					
	Occupational changers			Occupational nonchangers			Occupational changers			Occupational nonchangers		
	1971	1976	Change 1971-1976	1971	1976	Change 1971-1976	1971	1976	Change 1971-1976	1971	1976	Change 1971-1976
	--Dollars--		Percent	--Dollars--		Percent	--Dollars--		Percent	--Dollars--		Percent
White Collar	4.72	5.49	16.3	4.84	6.93	43.2	6.04	2/7.05	16.7	6.31	8.46	34.1
Blue Collar	1/2.83	1/3.84	35.7	3.23	4.71	45.8	2/3.95	2/5.32	34.7	4.22	6.12	45.0
Other 3/	2.24	3.23	44.2	2.11	2.92	38.4	2.96	4.29	44.9	3.21	4.21	31.2
Total	3.16	1/4.02	27.2	3.47	4.98	43.5	4.74	2/5.95	25.5	4.85	6.71	38.3

1/ Earnings of nonmetro occupational changers significantly different from nonchangers at the 95-percent confidence level.
2/ Earnings of metro occupational changers significantly different from nonchangers at the 95-percent confidence level.
3/ Other includes farmers, farm managers, farm laborers, and service workers.

Source: National Longitudinal Surveys.

Table 7--Average hourly earnings, by occupational status and residence, 1971 and 1976, young men

Occupational Group 1976	Average hourly earnings											
	Nonmetro						Metro					
	Occupational changers			Occupational nonchangers			Occupational changers			Occupational nonchangers		
	1971	1976	Change 1971-1976	1971	1976	Change 1971-1976	1971	1976	Change 1971-1976	1971	1976	Change 1971-1976
	--Dollars--		Percent	--Dollars--		Percent	--Dollars--		Percent	--Dollars--		Percent
White Collar	1/3.11	1/5.12	64.6	3.87	6.48	67.4	2/3.80	2/6.60	73.7	4.74	7.79	64.3
Blue Collar	1/2.66	4.27	60.5	3.04	4.82	58.6	2/3.54	5.80	63.8	3.96	6.07	53.3
Other 3/	1.92	3.54	84.4	1.96	2.96	51.0	2.89	4.87	68.5	3.29	4.74	44.1
Total	1/2.66	1/4.36	63.9	3.10	5.01	61.6	2/3.59	2/6.02	67.7	4.24	6.67	57.3

1/ Earnings of nonmetro occupational changers significantly different from nonchangers at the 95-percent confidence level.
2/ Earnings of metro occupational changers significantly different from nonchangers at the 95-percent confidence level.
3/ Other includes farmers, farm managers, farm laborers, and service workers.

Source: National Longitudinal Surveys.

occupations is associated with wage increases for younger workers, but the wage gains do not necessarily raise the wage levels of the changers to the level of nonchangers. The pattern of wage change for the older workers was different from the younger workers. Most of the nonchangers had higher rates of increase in earnings than the changers.

Older workers may change jobs for different reasons than younger workers. Some of the older job changers may have retired and took lower-paying jobs to supplement their retirement income. On the other hand, younger workers are more likely to change jobs in order to enhance their careers, and income earning capability.

Changes in earnings related to occupational mobility may also depend on whether the occupational change is voluntary or involuntary. Workers voluntarily leaving occupations are usually more successful in finding employment at higher wages than those who are laid off. Unfortunately the data do not permit differentiating between involuntary and voluntary occupational movements.

Other reasons changers earn less may be related to lack of experience or tenure in an occupation, occupation of the worker, or characteristics of workers such as race, age, and education level. Some studies show that higher levels of education and training are associated with higher earnings levels (Becker, 1964; Danziger, 1975; Hansen and et al., 1972; Mincer, 1975), while other studies show that the racial background of the worker affects earnings levels (Flanagen, 1974; Masters, 1975; Welch, 1973). Still other studies show that earnings rise early in life as workers gain experience and maturity, reach a peak in middle life, and then decline (Freeman, 1979; Rees, 1973; Ruggles and Ruggles, 1973). The labor market experience of workers, as measured by various occupations also have different effects on earnings, since occupations require different skills and training (Bibb and Form, 1977; Kalacherk and Raines, 1967; Stolzenberg, 1975).

Earnings Model

A statistical model is used to determine the effects of occupational mobility on earnings of workers in metro and nonmetro areas after adjusting for the partial effects of other socioeconomic variables on earnings. The model, which was estimated using the ordinary least squares regression technique, holds the effects of race, age, education and occupation of the workers constant, when estimating the impact of occupational mobility on earnings. The occupational data were for 1971 and 1976. Hourly earnings for 1976 (EARN) was the dependent variable. The independent variables were:

- CHANGERS-measures the 1971-76 changers of one-digit Census occupations. Persons changing occupations were given a code 1, nonchangers, code 0.
- AGE-age of employed persons.
- EDUC-years of schooling completed.[6]
- WCL76-occupation of employed in 1976. Persons in white collar occupations were given a code 1, all others, code 0.
- BLACK-race of employed. Blacks were given code 1, Whites, code 0.[7]

The results suggest that earnings are indeed affected by the act of changing occupations, even after the effects of other variables on earnings are taken into account. The regression coefficient of the occupational change variable (CHANGER) is both negative and significant in each of the four equations representing mature and young men in metro and nonmetro areas (tables 8 and 9). However, other factors also affect earning levels. Black workers of both age cohorts and residence groups earned less than white workers, and older workers in the mature men group had lower earnings than

Table 8--Regression results for mature men, 1976

Independent variables	Nonmetro	Metro
Constant	6.31	-7.67
	2/(3.67)*	(-5.41)*
WCL76	0.79	1.46
	(2.58)*	(6.36)*
EDUC	0.22	0.25
	(5.61)*	(7.96)*
BLACK	-0.98	-0.81
	(-3.46)*	(-3.70)*
CHANGERS	-0.70	-0.86
	(-3.04)*	(-4.19)*
AGE	-0.06	-0.08
	(-1.94)**	(-2.78)*
R^2	.33	.25
N	351	925
Dependent variable (EARN):1/		
MEAN	4.66	6.51
STD.DEV.	2.10	2.82

1/ The dependent variable is 1976 earnings per hour.
2/ Numbers in parentheses are t statistics.
*Statistically significant at the 99-percent confidence level.
**Statistically significant at the 95-percent confidence level.

Table 9--Regression results for young men, 1976

Independent variables	Nonmetro	Metro
Constant	0.43	-0.60
	2/ (.67)	(-0.97)
MCL76	0.42	0.30
	(2.04)**	(1.65)
EDUC	0.21	0.27
	(6.12)*	(7.51)*
BLACK	-1.21	-1.36
	(-6.84)*	(-7.38)*
CHANGERS	-0.37	-0.35
	(-2.44)**	(-2.32)**
AGE	0.12	0.20
	(5.07)*	(8.43)*
R^2	.33	.25
N	472	1016
Dependent variable (EARN): 1/		
MEAN	4.71	6.36
STD.DEV	1.63	2.37

1/ The dependent variable is 1976 earnings per hour.
2/ Numbers in parentheses are t statistics.
*Statistically significant at the 99-percent confidence level.
**Statistically significant at the 95-percent confidence level.

younger workers in the cohort. On the other hand, earnings of workers in the young men cohort increased with the age of the worker. Increases in work experience and skill levels would normally occur with age in the younger group.

The educational level of the worker affects earings levels in a positive way. That is, workers with the higher levels of education had higher hourly earnings than persons with lower levels of education. White collar employment also had a positive influence on earnings.

While occupational changers generally have lower earnings than non-changers, several other factors are important in the determination of earnings. These other factors may alter general conclusions about the impact of occupational mobility on wage determination.

SUMMARY

Despite differences in the occupational structure of metro and nonmetro areas, there is generally a lack of research on occupational mobility patterns. Analysis of National Longitudinal Surveys data of the 1971-76 Work Experience for Mature Men age 55 to 69 years in 1976 and Young Men age 24 to 34 years in 1976, showed no significant change in occupational distribution of mature men for either metro and nonmetro areas. There was a significant increase in the proportion of young nonmetro men employed as craftsmen, foremen, and kindred workers. The proportion of young metro workers employed in managerial occupations increased significantly, while the proportion employed in clerical, operatives, and nonfarm laborer occupations declined.

Young men in occupations requiring low skills and low education, specifically laborers, except farm and mine, and service workers, frequently changed occupations. In contrast, workers in occupations requiring higher

levels of education and skills or capital investments were highly immobile. Workers in nonmetro areas changed occupations more frequently than workers in metro areas.

The pattern between earnings and occupational status showed that generally mature and young men who changed occupations between 1971 and 1976 had lower average hourly earnings in 1976 compared to occupational nonchangers. However, young workers who changed occupations had higher rates of increase in earnings than nonchangers. Controlling for the effects of race, education, age, and occupation on earnings of changers indicates these variables significantly influence earnings levels. These factors should be considered before conclusions are reached about the impact of occupational mobility on wage determination.

FOOTNOTES

2. Statements of comparison in the text, but not necessarily in the tables, are significant at the 95-percent confidence level or higher.

3. Metro and nonmetro definitions are based on January 1, 1976, Standard Metropolitan Statistical Area (SMSA) jurisdictional definition.

4. Net mobility is the change in the proportion of total employment in each occupation from 1971 to 1976. Gross mobility is all changes among occupations from 1971 to 1976.

5. Blue collar occupations are defined as craftsmen, operatives and laborers, except farm. White collar occupations are defined as professional, technical, managerial, clerical and sales.

6. The education variable measures years of schooling completed as of 1966 for the mature men cohort, and 1976 for the young men cohort.

7. Among young and mature cohorts, 13 and 23 respondents, respectively, whose race was classified as other, were excluded from the samples.

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